

**REMARKS**

Applicants hereby request further examination of the subject application in view of the amendments and remarks presented herein.

In accordance with Paragraph 4 of the Detailed Action, Applicants hereby affirm election for the invention of Group I, claims 1-62, for examination, and withdraw claim 63.

Applicants have cancelled claims 1-13, 27-43, and 51-54, and therefore the rejection of those claims is moot.

**Claim Rejections – 35 U.S.C. §112**

Examiner rejected claims 14-18, 22-26, 44-50, 55-62 under 35 U.S.C. § 112, second paragraph, as being indefinite because of confusion over two “inner” surfaces being exposed to the combustion environment. Applicant respectfully traverses the rejection. Applicants have corrected the alleged error in the present amendment by deleting the indefinite language. The rejection is therefore overcome, and applicant respectfully requests withdrawal of the rejection.

***Examiner’s Comment***

Examiner commented that, “the use of the transitional phrase ‘composed’ will be taken to be synonymous with ‘consisting essentially of.’” Applicants respectfully note that the language of claims 48, 55, 56, 59 and 60 has been changed to delete the word, “composed” and, instead, insert the word, “comprised.” This substitution of language is supported in the specification as follows:

Claim 48: *See* specification, pg. 7, lines 7-8, “ . . . may also include an oxygen conducting material . . . ” (*See* MPEP § 2111.03, paragraph 2, where “include[ing]” is defined to be synonymous with “compris[ed]”).

Claim 55: *See* specification, pg. 6, line 23 – pg. 7, line 1, “ . . . may comprise a transparent base layer and a means for heating.”

Claim 56: *See* specification, pg. 6, line 23 – pg. 7, line 1, “ . . . may comprise a transparent base layer and a means for heating.”

Claim 59: *See* specification, pg. 6, line 23 – pg. 7, line 1, “ . . . may comprise a transparent base layer and a means for heating,” and specification, pg. 7, lines 7-8, “ . . . may also include an oxygen conducting material . . . ” (*See* MPEP § 2111.03, paragraph 2, where “include[ing]” is defined to be synonymous with “compris[ed]”).

Claim 60: *See* specification, pg. 6, line 23 – pg. 7, line 1, “ . . . may comprise a transparent base layer and a means for heating,” and specification, pg. 7, lines 7-8, “ . . . may also include an oxygen conducting material . . . ” (*See* MPEP § 2111.03, paragraph 2, where “include[ing]” is defined to be synonymous with “compris[ed]”).

**Claim Rejections – 35 U.S.C. § 102**

Claims 14-17, 19-25, 44-46, 55-57, and 59-61, are rejected under 35 U.S.C. § 102(b) as being anticipated by **Greenberg et al (U.S. Patent No. 6,054,227)**. Applicants respectfully traverse the rejection.

**Greenberg** does not teach or suggest the use of the applicants’ claimed integrated self-cleaning window assembly having an oxygen conducting material integral with a transparent base layer as claimed in Applicants’ independent Claims 14, 19, 22, 44, 48, 55, 56, 59, and 60.

Applicants' integrated self-cleaning window assembly provides for transporting oxygen molecules from the outer surface of the transparent base layer through the transparent base layer, through the inner surface of the transparent base layer, and depositing the oxygen molecules into the combustion environment. (*See Application pg. 13, line 11.*)

As illustrated in Figures 5, 6, 7, 12, 16, 17, 18, 19, and 20, Applicants' invention contains a means of transporting oxygen from outside the combustion environment to inside the combustion environment. This is achieved by integrating the oxygen conducting material into the transparent base layer - either by an oxygen conducting material placed perpendicular to, and embedded within, the transparent base layer (*See Claim 14/Fig. 5, Claim 19/Fig. 6, Claim 22/Fig. 7, Claim 44/Fig. 12, Claim 48, Fig. 16, Claim 56/Fig. 17, and Fig. 20*), or by making the transparent base layer out of an oxygen conducting material (*See Claim 59/Fig. 18 and Claim 60/Fig. 19*).

Further, **Greenberg** teaches a photocatalytically-activated self-cleaning coating where ultraviolet (UV) radiation is required to activate the self-cleaning process. *See Greenberg, inter alia, Abstract, and pg. 2, lines 21-26.* Applicants' integrated self-cleaning window assembly includes a thermally-activated catalyst and requires neither photo-activation nor UV radiation activation of the catalyst. *See, e.g., Application, pg. 13, lines 8-16.*

It is submitted that claims 14, 19, 22, 44, 48, 55, 56, 59, 60, as now amended, as well as claims 15-18 which depend from and further limit claim 14, claims 20-21 which depend from and further limit claim 19, claims 23-26 which depend from and further limit claim 22, claims 45-47 which depend from and further limit claim 44, claims 49-50 which depend from and further limit claim 48, claims 57-58 which depend from and further limit claim 56, and claims

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61-62 which depend from and further limit claim 60, patently distinguish over Greenberg, that the rejection is overcome, and Applicants respectfully request withdrawal of the rejection.

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**CONCLUSION**

In view of all the above amendments and remarks, it is submitted that the Examiner's rejections and objections are overcome, and that Applicants' claims are in condition for allowance. Applicants therefore earnestly solicit allowance of thereof, and the issue of U.S. letters patent therefore.

Respectfully submitted,



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